

Congress of Orientalists we have a right to claim what is due to them, and I doubt whether anybody here present would deny that it is due in the first place to Oriental scholars, such as Sir W. Jones, Colebrooke, Schlegel, Bopp, Burnouf, Grimm, and Kuhn, if we now have a whole period added to the history of the world, if we now can prove that long before we know anything of Homeric Greece, of Vedic India, of Persia, Greece, Italy, and all the rest of Europe, there was a real historical community formed by the speakers of Aryan tongues, that they were closely held together by the bonds of a common speech and common thoughts. It is equally due to the industry and genius of Oriental scholars such as de Sacy, Gesenius, Ewald, and my friend the late Prof. Wright, if it can no longer be doubted that the ancestors of the speakers of Babylonian and Assyrian, Syriac, Hebrew, Phœnician, and Arabic formed once one consolidated brotherhood of Semitic speech, and that, however different they are when they appear for the first time in their national individuality on the stage of history, they could once understand their common words and common thoughts, like members of one and the same family. Surely this is an achievement in which Oriental scholarship has a right to take pride, when it is challenged to produce its title to the gratitude of the world at large."

Turning to another field, Prof. Müller showed that Oriental scholars had inspired the oldest period in the history of the world with a new life. Instead of learning by heart the unmeaning names of kings and the dates of their battles, whether in Egypt or Babylon, in Syria or Palestine, we had been enabled, chiefly through the marvellous discoveries of Oriental scholars, to watch their most secret thoughts, to comprehend their motives, to listen to their prayers, to read even their private and confidential letters. The ancient history of the world might be said to have assumed, under the hands of Oriental scholars, the character of a magnificent dramatic trilogy. The first drama told us of the fates of the Aryan and Semitic races, as compact confederacies before their separation into various languages and historical nationalities. The second drama was formed by the wars and conquests of the great Eastern Empires in Egypt, Babylon, and Syria, but it showed us that besides these wars and conquests, there was a constant progress of Eastern culture towards the West, towards the shores and islands of the Mediterranean, and lastly towards Greece. The third drama represented the triumphant progress of Alexander, the Greek far more than the Macedonian, from Europe through Persia, Palestine, Phœnicia, Egypt, Babylon, Hyrcania, and Bactria to India, in fact through all the great empires of the ancient East. Here we saw the first attempt at re-establishing the union between East and the West.

Prof. Müller concluded his address with an eloquent and impressive plea for the encouragement of Oriental studies in England. "When," he said, "I accepted the honourable post of president of this congress, it was chiefly because I hoped that this congress would help to kindle more enthusiasm for Oriental scholarship in England. But that enthusiasm must not be allowed to pass away with our meeting. It should assume a solid and lasting form in the shape of a permanent and powerful association for the advancement of Oriental learning, having its proper home in the Imperial Institute. If the members of this congress and their friends will help to carry out this plan, then our congress might hereafter mark an important epoch in the history of this the greatest Eastern Empire, and I should feel that, in spite of all my shortcomings, I had proved not quite unworthy of the confidence which my friends and fellow-labourers have reposed in me."

A vote of thanks to Prof. Müller for his interesting address was moved by Prof. von Bühler, seconded by Count de Gubernatis, and carried with enthusiasm.

On Tuesday the work of the sections was proceeded with. Special interest was given to the proceedings on Wednesday by the reading of an address written by Mr. Gladstone, for the section dealing with Archaic Greece and the East.

THE ERUPTION AT SANGIR.

ON Friday last the *Times* printed some interesting extracts from a letter (dated Labuan, July 11, 1892) by Mr. George Ormsby, a magistrate in the British North Borneo Company's Service, containing an account of the recent eruption in Sangir, and of a visit paid to the spot immediately afterwards.

Mr. Ormsby left Sandakan on June 4 in the s.s. *Normanby*, and arrived at Menado on the morning of the 7th. After a visit to Govontalo the vessel returned to Menado on the 10th, and here Mr. Ormsby heard that there had been an eruption on some of the islands to the north, and that the s.s. *Hecuba*, which had arrived at Menado just after the *Normanby* had started for Govontalo, had been chartered by the Dutch Government, and had gone out to find the scene of the eruption and to render assistance. On the 12th the *Hecuba* was sighted coming into Menado, and Mr. Ormsby and the skipper of the *Normanby* went on board as soon as she dropped anchor. "The captain," says Mr. Ormsby, "told us that he first went to an island called Siow, as the volcano there was known to be active. He found the island covered with ashes, but was told that the eruption had taken place at Sangir, an island about 30 miles further north. He went on there, and found it buried in ashes; they were digging the houses out at Tarona, the port. The coconut trees were all destroyed, and the loss of life was unknown. The volcano was slightly in eruption when he arrived. He went along the coast, stopping at the villages, and sending rice ashore, as the people were without food. He said some of the people were frightfully burned and maimed."

When the Dutch official who was on board the *Hecuba* reported the state of affairs to the Resident, the *Normanby* was chartered to take rice to the island and land it at Tarona. She left Menado at midnight, and arrived at Tarona next afternoon. "As we steamed up the coast of Sangir we could see the coconuts, with all the leaves broken and hanging downwards and covered with ashes, although the southern end of the island is sheltered from the volcano by hills. The harbour of Tarona is a narrow inlet, about half-way up the western side of the island, with steep hills on each side. The village is on the north side of the harbour, and is sheltered from the volcano by the hills behind it; behind the hills a large plain stretches to the foot of the volcano."

The eruption took place on the 7th at 7 p.m., and there was a slight eruption on the 9th, followed by heavy rain. The only damage done in Tarona was by the weight of ashes; many of the lightly-built native houses were crushed. "The afternoon we arrived," Mr. Ormsby says, "I went ashore, and followed the road from Tarona along the harbour. On rounding the end of the hills the road turned and ran along the northern slope of the hill; down below the road there was a deep ravine, with a small stream at the bottom, which was warm and smelt strongly of sulphur. The ravine was 40 ft. or 50 ft. deep, and had evidently been partly cut out by a stream of mud, which had rushed down it from the foot of the mountain and torn away the road in places. Looking across the ravine towards the crater the whole plain was burnt up, and near the foot of the mountain there was a jet of steam and thick black smoke. On the slope of the crater there was no sign of lava or mud. The three mud rivers I saw started from the foot of the mountain. I followed the road for some distance. About two miles from the sea it crossed a small triangular plain, and then zigzagged up the central range of hills. Where it crossed the plain it was entirely washed away by mud and ashes, which had been hardened by the rain after the eruption. The bridge across the stream was also destroyed, only the butts of the piles remaining. I got up to the top of the hills and a bit down the other side. I had a fine view of the volcano from the top; it was smoking, but there were no fireworks while we were on the island. I noticed a column of steam rising from the plain, close to the foot of the volcano, and determined to try and reach it next morning."

The column of steam was visited next day by Mr. Ormsby and the chief engineer, but they reached it with difficulty. On the way they had to jump a "stream which was steaming, and must have been very hot." He says:—"We went up to where the steam was blowing up through the mud. The mud was quite firm, but so hot that we had to shift from one foot to the other. The steam was puffing up through a lot of holes, but not very strongly where we were. I poked up a lot of stones out of one of the holes with my stick; they were so hot you could not hold them. I let two of them cool a bit, and then rolled them up in my handkerchief and put them in my pocket. One of them was covered with sulphur crystals, but, unfortunately, I lost it as we were returning. The whole place smelt strongly of sulphur, and we soon decided we had had enough of it, as it was about 9 a.m., and between the sun above and the earth below we were both streaming with perspiration. We got back to the ship pretty well fagged, and I stayed on board

till we left at 3 p.m. We went direct from Taroná to Sandakan, and as we steamed past the north end of the island I counted 18 jets of steam and smoke on the plain where in the morning there had only been two. The volcano itself was wrapped in smoke, and there were heavy clouds of smoke hanging over the plain. . . . The Dutch controleur told us that they had already recovered 300 bodies, but that it was impossible to estimate the total loss. He said the other side of the island was worse, lava as well as mud having overflowed there, and that whole villages were buried. No lives were lost in Taroná itself, but forty men from there went into the jungle just before the eruption, and only one got back alive. . . . We got to Sandakan at midnight on the 16th, and stopped a day there. The eruption was distinctly heard at Sandakan, though it is nearly 500 miles from Sangir."

THE WEST INDIAN FAUNA IN SOUTH FLORIDA.

DR. C. H. MERRIAM has lately published a paper on "The Geographical Distribution of Life in North America" (Proc. Biol. Soc. Wash., April, 1892), which should attract attention on account of the important problems discussed, and the interesting and somewhat novel views advanced. On pp. 49-55 there is a review of the faunal relations of Southern Florida, in which Dr. A. R. Wallace is severely criticized for having stated that Florida is, from a biological point of view, essentially North American, and totally distinct in character from Cuba and the Bahamas, from which it is separated by only a narrow strait. The phrase specially attacked is out of "Island Life," as follows: "Between frigid Canada and subtropical Florida there are less marked differences in the animal productions than between Florida and Cuba."¹

I well remember that some time ago, when I knew next to nothing of the West Indian fauna, this particular phrase seemed to me very erroneous. An American zoologist cannot fail to be struck with the presence of a colony of West Indian forms in Southern Florida, so distinct from the species and genera of the United States. Following Dr. Merriam's enumeration, we see nine genera of tropical birds, hundreds of tropical insects, a dozen or more land shells, many plants, and so forth. It would seem impossible to doubt that Southern Florida should be referred to the West Indian faunal division in the face of such evidence.

But if we examine the matter from the point of view of a West Indian, who is searching for a fauna in Florida, which is identical, or nearly so, with that of the islands, things look very different indeed. Dr. Wallace's reference was to Florida as a whole, the term "subtropical" being used as descriptive of the State, not of the southern coast only, as used by Dr. Merriam. In the map given by Dr. Merriam, about nine-tenths of Florida are coloured orange, to indicate that they belong to the Lower Sonoran Region of the author. Now this, with the Upper Sonoran, which stretches into Canada, north of Lake Erie, forms the Sonoran, one of Dr. Merriam's primary divisions, the distinction of which from the Tropical region he has so well demonstrated. Furthermore, a large part of Canada is coloured blue on the map, to show that it belongs to the Transition Region between the Sonoran and the Boreal. Hence it appears, from Dr. Merriam's own map, and the statements throughout his paper, that by far the greater part of Florida is more allied faunally to portions of Canada than it is to the West Indies, so far exactly confirming the truth of Dr. Wallace's statement.

This will no doubt be readily admitted by Dr. Merriam, who bases his criticisms on the ground that Dr. Wallace had overlooked the existence of a West Indian fauna along the extreme south coast of Florida. We may, therefore, consider the evidence whereby this limited portion of the State is placed in the Tropical division. For convenience, we may allude to this tract as Tropical Florida, using the term tropical to indicate the climate rather than the fauna.

In order to get at the necessary facts, I have compared the birds of the regions under consideration, using Cory's "Birds of the West Indies" as a guide to the ornithology of the several islands.

Dr. Merriam says that "no less than nine" genera of Tropical American birds inhabit Tropical Florida, and cites

¹ This statement is qualified by a footnote in the new edition of "Island Life," where the existence of some West Indian forms is referred to.

nineteen species or subspecies of Antillean birds living in the same area, but not further north.

I find on examining and comparing the West Indian statistics,¹ that no less than 51 genera of West Indian land birds fail to reach Florida or any other part of North America. These genera are as follows:—

Mimocichla; *Cichlherminia*; *Margarops*; *Ramphocinclus*; *Cincloerchia*; *Leucopera*; *Catharopera*; *Microigea*; *Teretistris*; *Glossiptila*; *Laletes*; *Dulus*; *Calliste*; *Spindalis*; *Nesotpingus*; *Phanicochilus*; *Calyptophilus*; *Saltator*; *Loxigilla*; *Melopyrrha*; *Loximitris*; *Sicalis*; *Nesopsar*; *Elainia*; *Lawrencia*; *Blacicus*; *Nyctilus*; *Siphonorhis*; *Hemiprocne*; *Glaucis*; *Lampornis*; *Eulampis*; *Aithurus*; *Thalaurania*; *Mellisuga*; *Doricha*; *Bellona*; *Sporadinus*; *Priotelus*; *Temnotrogon*; *Sauvothera*; *Hyetornis*; *Todus*; *Picumnus*; *Nesocelus*; *Ara*; *Chrysotis*; *Gymnasio*; *Rufornis*; *Regerhinus*; *Xiphidopicus*.

Those printed in ordinary type appear to occur in the West Indies only in the Lesser Antilles.

The number of West Indian species not reaching Florida is of course overwhelmingly great, but here the comparison would be unfair, owing to the large number of representative species, on different islands. In order to obtain a just estimate I have therefore made a list of the land birds inhabiting Cuba which do not occur in Tropical Florida, and the result shows one family (*Todidae*), 18 genera, and 52 species. There are also a few sub-species.

The list is as follows:—

<i>Icterus hypomelas.</i>	<i>Myiarchus sagræ. B.</i>
<i>Agelaius humeralis.</i>	* <i>Blacicus caribæus.</i>
„ <i>assimilis.</i>	<i>Tyrannus magnirostris.</i>
<i>Sturnella hippocrepis.</i>	<i>Antrostomus cubanensis.</i>
<i>Quiscalus gundlachi.</i>	<i>Cypselus phœnicolus.</i>
„ <i>atroviolaceus.</i>	* <i>Hemiprocne zonaris.</i>
<i>Corvus nasicus.</i>	<i>Calypte helenæ.</i>
„ <i>minutus.</i>	* <i>Sporadinus riccordi. B.</i>
<i>Pitangus caudifasciatus.</i>	* <i>Priotelus temnurus.</i>
* <i>Sauvothera merlini.</i>	<i>Petrochelidon fulva.</i>
* <i>Todus multicolor.</i>	<i>Viveo gundlachi.</i>
* <i>Xiphidopicus percussus.</i>	* <i>Spindalis pretrei.</i>
<i>Centurus superciliosus.</i>	* <i>Melopyrrha nigra.</i>
<i>Colaptes chrysocaulosus.</i>	* <i>Pyrrhomitris cucullata.</i>
* <i>Nesocelus fernandinae.</i>	<i>Euethia olivacea.</i>
* <i>Mimocichla rubripes.</i>	* <i>Ara tricolor.</i>
„ <i>schistacea.</i>	<i>Conurus euops.</i>
<i>Myiadestes Elizabeth.</i>	* <i>Chrysotis leucocephala. B.</i>
<i>Mimus gundlachi. B.</i>	<i>Asio stygius.</i>
<i>Poliophtila lembeyi.</i>	* <i>Gymnaio lawrencii.</i>
<i>Dendroica petechia (race gundlachi) B.</i>	<i>Glaucidium siju.</i>
„ <i>pityophila.</i>	<i>Accipiter gundlachi.</i>
* <i>Teretistris fernandinae.</i>	„ <i>fringilloides.</i>
„ <i>fornsi.</i>	* <i>Regerhinus wilsonii.</i>
* <i>Cœreba cyanea.</i>	<i>Columba corensis.</i>
	„ <i>inornata.</i>
	<i>Geotrygon caniceps.</i>

The two species of *Columba* are not definitely given as Cuban in Cory's work but I believe they occur there. Species marked with an asterisk are of genera not reaching Florida; species marked "B" also occur in the Bahamas.

The Bahama Islands also have many birds that are not in Tropical Florida, including some genera, as *Doricha* (two species).

It is thus apparent that, so far as the birds are concerned, the arm of sea between Cuba or the Bahamas and the mainland has been very efficient in preventing the mingling of two faunæ, although a limited number of species have crossed it.

To give many other instances would unduly prolong this letter; but one may cite the land shells as a much more striking case. The land mollusca of Cuba and Florida are almost entirely distinct, the small number (about a dozen²) of West Indian forms which have reached Florida is really surprising, considering the favourable currents and the proximity of the two areas. Cuba contains numerous generic and subgeneric types, and hundreds of species, which have never reached Florida.³

On the other hand, even on the Florida Keys we get such

¹ These might be modified in slight details by searching the most recent literature, but Cory's work (1889) is very complete up to the time it was published.

² Dr. Merriam cites 20 on Dr. Dall's authority; but several of these are not land shells, but belong to brackish or fresh water.

³ Thus, Cuba has considerably over 200 species of operculate land-shells which have not reached Florida.